

IN THE CLAIMS:

Please cancel claims 19-21 without prejudice.

Please amend claims 1 and 10 as follows:

1. (Currently Amended) A digital data transmission system including at least one first unit that transmits a first MLT3 signal containing digital data over at least one cable, at least one second unit that receives the first MLT3 signal and recovers the digital data, and transformers that uncouple the first and second units from the cable, said second unit comprising:

an equalizer that receives the first MLT3 signal at an input, and outputs a second MLT3 signal;

a recovery module for the transmitted digital data that receives the second MLT3 signal; and

a device placed in feedback to the equalizer, the device receiving the second MLT3 signal and outputting a third ~~low frequency~~ signal that is added to the first MLT3 signal at the input of the equalizer,

wherein the device includes a translation block for up or down or no translation of the second MLT3 signal according to the low or high or intermediate value of the second MLT3 signal, and a low pass filter that receives the signal output from the translation block and outputs the third signal that contains the low frequency component of the second MLT3 signal.

2. (Original) The system according to claim 1,

wherein the second MLT3 signal is a voltage signal, and

in the translation block, the second MLT3 signal is translated by approximately -1V or 1V when the value of the second MLT3 signal is higher than approximately 0.5V or lower than approximately -0.5V, while there is no translation of the second MLT3 signal if its value is between approximately -0.5V and 0.5V.

3. (Original) The system according to claim 2, wherein the translation block includes:  
a comparator that has thresholds of approximately 0.5V and -0.5V and receives at input  
the second MLT3 signal; and  
three switches controlled by the comparator, each of the switches being connected to the  
output of the equalizer and two of the switches being connected to voltage generators of values  
of approximately -1V and 1V.
4. (Original) The system according to claim 1,  
wherein the second MLT3 signal is a voltage signal, and  
in the translation block, the second MLT3 signal is converted by a voltage/current  
converter so as to produce a current signal that is translated by approximately -100  $\mu$ A or by  
100  $\mu$ A when the value of the current signal is higher than approximately 50  $\mu$ A or lower than  
approximately -50  $\mu$ A, while there is no translation of the current signal if its value is between  
approximately -50  $\mu$ A and 50  $\mu$ A.
5. (Original) The system according to claim 4, wherein the translation block includes:  
a comparator that has thresholds of approximately 50  $\mu$ A and -50  $\mu$ A and receives the  
current signal; and  
three switches controlled by the comparator, each of the switches being connected to the  
output of the voltage/current converter and two of the switches being connected to current  
generators of values of approximately -100  $\mu$ A and 100  $\mu$ A.
6. (Original) The system according to claim 1, wherein the signal output from the low pass  
filter is a voltage signal that controls a current generator that provides a current signal that  
produces the third signal at the terminals of a resistor, which is disposed between the input of the  
equalizer and the transformer of the receiver.
7. (Original) The system according to claim 1, further comprising an uncoupling buffer  
located before the switches.

8. (Original) The system according to claim 1, wherein the digital data transmission system is an ethernet system.

9. (Original) The system according to claim 1, wherein the digital data transmission system is a 100Mb/s digital data transmission system.

10. (Currently Amended) A receiver for a digital data transmission system, said receiver comprising:

an equalizer that receives a first MLT3 signal at an input, and outputs a second MLT3 signal;

a recovery module for transmitted digital data contained in the second MLT3 signal, the recovery module receiving the second MLT3 signal; and

a device placed in feedback to the equalizer, the device receiving the second MLT3 signal and outputting a third ~~low frequency~~ signal that is added to the first MLT3 signal at the input of the equalizer,

wherein the device includes a translation block for up or down or no translation of the second MLT3 signal according to the low or high or intermediate value of the second MLT3 signal, and a low pass filter that receives the signal output from the translation block and outputs the third signal that contains the low frequency component of the second MLT3 signal.

11. (Original) The receiver according to claim 10,

wherein the second MLT3 signal is a voltage signal, and

in the translation block, the second MLT3 signal is translated by approximately -1V or 1V when the value of the second MLT3 signal is higher than approximately 0.5V or lower than approximately -0.5V, while there is no translation of the second MLT3 signal if its value is between approximately -0.5V and 0.5V.

12. (Original) The receiver according to claim 11, wherein the translation block includes:  
a comparator that has thresholds of approximately 0.5V and -0.5V and receives at input  
the second MLT3 signal; and  
three switches controlled by the comparator, each of the switches being connected to the  
output of the equalizer and two of the switches being connected to voltage generators of values  
of approximately -1V and 1V.
13. (Original) The receiver according to claim 10,  
wherein the second MLT3 signal is a voltage signal, and  
in the translation block, the second MLT3 signal is converted by a voltage/current  
converter so as to produce a current signal that is translated by approximately -100  $\mu$ A or by  
100  $\mu$ A when the value of the current signal is higher than approximately 50  $\mu$ A or lower than  
approximately -50  $\mu$ A, while there is no translation of the current signal if its value is between  
approximately -50  $\mu$ A and 50  $\mu$ A.
14. (Original) The receiver according to claim 13, wherein the translation block includes:  
a comparator that has thresholds of approximately 50  $\mu$ A and -50  $\mu$ A and receives the  
current signal; and  
three switches controlled by the comparator, each of the switches being connected to the  
output of the voltage/current converter and two of the switches being connected to current  
generators of values of approximately -100  $\mu$ A and 100  $\mu$ A.
15. (Original) The receiver according to claim 10, wherein the signal output from the low  
pass filter is a voltage signal that controls a current generator that provides a current signal that  
produces the third signal at the terminals of a resistor, which is disposed between the input of the  
equalizer and a transformer of the receiver.
16. (Original) The receiver according to claim 15, further comprising an uncoupling buffer  
located before the switches.

17. (Original) The receiver according to claim 10, wherein the digital data transmission system is an ethernet system.

18. (Original) The receiver according to claim 10, wherein the digital data transmission system is a 100Mb/s digital data transmission system.

19-21. (Canceled)